REMARKS

Applicants respectfully request further examination and reconsideration in view of the comments set forth fully below. Claims 1-25 were pending. Within the Office Action, claims 1-25 have been rejected. Claims 1-25 are now pending.

Rejections Under 35 U.S.C. § 103

Within the Office Action, claims 1-25 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,890,051 to Schlang et al. (hereinafter "Schlang") in view of U.S. Patent No. 6,480,553 to Ho et al. (hereinafter "Ho"). The Applicants respectfully disagree with this rejection. Schlang teaches a mobile phone receiver comprising a first down converter using a first local oscillator frequency which can be tuned in frequency steps by a programmable digital frequency synthesizer PLL which is locked to a reference frequency. The first down converter converts received signals to a first IF for filtering. A second down converter using a second local oscillator converts first IF signals to a second IF. The second local oscillator frequency is generated using a second digital frequency synthesizer PLL which locks the second oscillator to the reference frequency. A third down converter mixes the transmit frequency with the first local oscillator frequency to produce a lock frequency. A third digital frequency synthesizer PLL compares the lock frequency and the reference frequency to control generation of the transmit frequency [Schlang, Abstract].

As recognized by the Office Action, Schlang does not teach the feature of the reception path, the transmission path, and the frequency generator sharing a maximum amount of common circuitry to facilitate implementation of the entire radio transceiver on a single integrated circuit. The Applicants respectfully submit that Schlang also does not teach a programmable phase lock loop having **an output coupled to the reception path and the transmission path.**

Ho teaches a Gaussian Frequency Shift Keying (GFSK) radio transceiver for Industrial Scientific and Medical (ISM) wideband communication. It utilizes a variable-gain power amplifier that can improve the drawbacks of interference and high power consumption with the prior art, and further utilizes a single wideband VCO to generate an oscillating signal that can be used both as the carrier signal in the transmitter and the first local oscillating signal for the receiver. This allows the GFSK radio transceiver to be implemented with a fewer number of VCOs as compared to the prior art, thus reducing the manufacturing cost [Ho, Abstract]. Ho does not teach the feature of a PLL having an output coupled to the reception path and the transmission path. Furthermore, Ho also does not teach the feature of the reception path, the transmission path, and the frequency generator sharing a maximum amount of common circuitry

to facilitate implementation of the entire radio transceiver on a single integrated circuit. In fact, Ho merely teaches the GFSK radio transceiver being implemented with a fewer number of VCOs as compared to the prior art so that the manufacturing cost of the GFSK radio transceiver of the invention can be reduced [Ho, col. 2, lines 63-67]. Accordingly, neither Schlang, Ho nor their combination teach the programmable phase lock loop having an output coupled to the reception path and the transmission path, nor the feature of the reception path, the transmission path, and the frequency generator sharing a maximum amount of common circuitry to facilitate implementation of the entire radio transceiver on a single integrated circuit.

In contrast to the teachings of Schlang, Ho and their combination, the radio transceiver of the present invention comprises a reception path, a transmission path, and a frequency generator with a programmable phase lock loop, wherein the programmable phase lock loop has an output coupled to the reception path and the transmission path, and further wherein these elements share a maximum amount of common circuitry to facilitate implementation of the entire radio transceiver on a single integrated circuit. The reception path includes an amplifier and a quadrature mixer for producing low intermediate frequency signals. As described above, neither Schlang, Ho nor their combination teach the feature of the programmable phase lock loop having an output coupled to the reception path and the transmission path, nor the feature of the reception path, the transmission path, and the frequency generator sharing a maximum amount of common circuitry to facilitate implementation of the entire radio transceiver on a single integrated circuit.

The Applicants respectfully submit that the Examiner is relying upon hindsight, having knowledge of the Applicants' own structure. But for this knowledge, the combination of references would not have occurred to the Examiner, as it did not occur to those skilled in the art to make the asserted combination. In other words, the combination proposed by the Examiner is being made only in light of his knowledge of the Applicants' disclosure. Regardless of this hindsight, both of these references, taken either alone or in combination, fail to disclose or suggest the invention as now recited.

Furthermore, the Applicants respectfully suggest that even if the cited references disclosed or suggested the invention as now cited, the rejections evidence 'picking and choosing' features of the cited references and combining them when there is no suggestion in those references to do so. It is impermissible within the framework of a 35 U.S.C. §103 rejection to pick and choose from any one reference only so much of it as will support a given position to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one skilled in the art. *In re* Wesslau, 353 F.2d 238 at 241, 147 USPQ 391 at 393 (CCPA 1965). Furthermore, obviousness cannot be established by combining the teachings of the prior

art to produce the claimed invention absent some teaching or suggestion supporting the combination. Teachings of references can be combined only if there is some suggestion or incentive to do so.

The independent claim 1 is directed to a radio transceiver comprising a reception path, a transmission path and a frequency generator comprising a programmable phase lock loop having an output coupled to the reception path and the transmission path, wherein the reception path, the transmission path, and the frequency generator share a maximum amount of common circuitry to facilitate implementation of the entire radio transceiver on a single integrated circuit. As described above, neither Schlang, Ho nor their combination teach the feature of the programmable phase lock loop having an output coupled to the reception path and the transmission path, nor the feature of the reception path, the transmission path, and the frequency generator sharing a maximum amount of common circuitry to facilitate implementation of the entire radio transceiver on a single integrated circuit. For at least these reasons, the independent claim 1 is allowable over the teachings of Schlang, Ho and their combination.

Claims 2-25 are all dependent on the independent claim 1. As discussed above, the independent claim 1 is allowable over the teachings of Schlang, Ho and their combination. Accordingly, the dependent claims 2-25 are all also allowable as being dependent on an allowable base claim.

For the reasons given above, Applicants respectfully submit that the claims are now in a condition for allowance, and allowance at an early date would be appreciated. Should the Examiner have any questions or comments, they are encouraged to call the undersigned at (408) 530-9700 to discuss the same so that any outstanding issues can be expeditiously resolved.

Respectfully submitted,
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